

Motivations and Training Needs of General Practitioner Preceptors

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Abstract

Background: General practitioner (GP) preceptors play an important role in the cultivation of GPs. Many problems exist in the training of GP preceptors. This study aimed to explore the willingness and training needs of GP preceptors and compare the differences between preceptors from general practice and other specialties.

Methods: A total of 375 questionnaire forms were sent to 375 GP preceptors from 11 different provinces, and 344 completed forms were returned. The main outcome included general information, teaching motivations, and training needs of GP preceptors.

Results: The study showed that about 89.2% of GP preceptors were willing to be teachers. The majority of respondents strongly agreed that the motivation for becoming a GP supervisor was to learn from teaching. The most important capability they should master was clinical teaching (92.2%), followed by lecture (83.1%) and doctor-patient communication (83.1%). The top three preferred methods of GP preceptors training were case discussion (78.8%), workshop (57.6%), and classroom teaching (56.4%). The domains in which most GP preceptors wanted to acquire knowledge and skill were mental health (59.3%), rehabilitation (47.1%), pediatrics (41.0%), and obstetrics (37.5%). No significant differences were found in the willingness to train GPs ($\chi^2 = 3.34, P > 0.05$) and whether they would become or continue to become a GP supervisor after the training ($\chi^2 = 1.106, P > 0.05$).

Conclusions: Although most preceptors were under on-the-job training, they were glad to train GPs. To be qualified, preceptors should be trained according to the actual needs of GP preceptors.

Key words: General Practitioner; Health Educator; Motivation; Needs Assessment

INTRODUCTION

General medicine started in North America in the late 1960s. The United States, Britain, and Australia have established an improved lifelong education system in general medicine, including undergraduate education, standard training after graduation, and continued education in general practice. The responsibilities of preceptors abroad include the basic theory teaching and clinical practice teaching. No unified regulation existed for preceptors in general medicine of the World Organization of Family Doctors, but most countries had strict access standards of general medicine preceptors and also mature and perfect standards of the training and assessment of preceptors in general medicine.

General medicine was introduced in China in the late 1980s.^[1] At that time, most general practitioners (GPs) were barefoot doctors, practicing specialists, or technicians who

were retrained, with more than 60% of doctors having no GP training.^[2] In 2011, Premier Wen Jiabao, the State Council Executive, put forward the “establish the GP system” in meeting of the State Council and requested that a unified and standard training mode called “5 + 3” mode for GPs should be formed with several years of efforts. According to the principle, GPs should first receive a 5-year undergraduate education, followed by a 3-year standard training in general practice (30 months in hospital and 6 months in community health center). The latest GP preceptor criterion for hospitals

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is a bachelor's degree or higher, or fellow doctors at least. For community health centers, GP preceptor should have a college degree or higher, or be fellow doctors or above, with more than 3 years of working experience in a community health center.

GP preceptors play an important role in the cultivation of GPs. According to the "implementation opinion of GP preceptors training (2012)" jointly issued by the office of the Ministry of Health, the office of the Ministry of Education, the office of the Ministry of Finance, and the state administration of traditional Chinese medicine, China has achieved the goal to train more than 6 million GP preceptors (among them, at least 2 million were from primary care centers) and finally establish a team with suitable and competent GP preceptors for training work. Under the existing permitted conditions in China, GPs and GP preceptors were trained at the same time. National and provincial trainings were conducted progressively to solve the problem of lacking GP preceptors. Qualified GP preceptors are seriously inadequate at present. Therefore, the on-the-job training program was the main measure in China. Apart from teachers of general medicine in universities and GPs in hospitals and community health service centers, some of the trainees were specialists from different departments. According to statistics, about 12,000 GP preceptors are available to date. However, the training of GP preceptors is associated with many problems.^[3-5] The health administrative departments from different provinces are in charge of formulating a training plan, organizing the final examination, assessing the quality of training, and awarding the certificate of qualification. In need of a unified recruitment standard, GP preceptors produced were of varying levels of expertise. Moreover, no unified training and assessment system was available. The on-the-job training lasted a few days to 12 months, which also could not ensure the quality of GP preceptors. Further, most of the GP preceptors were recommended by relevant governmental departments, hospitals, or community health centers. Therefore, many GP preceptors were not sure whether they would be or continue to be a GP supervisor after the training.^[6]

Motivational theories with broad empirical support and great influence in the recent decades, such as the social cognitive theory and the self-determination theory, imply that motivation influences task selection, persistence, and performance. Teachers' motivation might be important to ensure successful student learning.^[7] Many studies are available on training needs of GPs; however, studies on GP preceptors are rare.^[8-11] It was believed strongly that successful training programs should give importance to the needs of trainers. Hence, it is necessary to explore the willingness and training needs of GP preceptors. A national questionnaire study was performed to determine ways to enhance future training work. The differences between preceptors from general practice and other specialties were also assessed due to the high number of on-the-job training GP preceptors.

METHODS

Ethical approval

Ethical approval was waived for this study.

Study design

The study was a cross-sectional survey from October to November 2015. The questionnaire was self-designed on the basis of references and opinions of GP experts. The questionnaire was given to GP preceptors sponsored by the National Health and Family Planning Commission hosted by the First Affiliated Hospital of Zhejiang University and continuing education colleges of Zhejiang University. GP preceptors were asked to complete the questionnaire at the end of GP preceptor training, without discussing with others. The completed questionnaire forms were collected personally by survey administrators along with signed informed consent to participate. The survey administrators were faculty of continuing education colleges of Zhejiang University who had received a short training course about the study purpose, questionnaire content, and how to answer the questionnaire. A total of 344 GP preceptors (91.7% of total) from 11 provinces/autonomous regions of China, including Zhejiang, Anhui, Hainan, Henan, Hunan, Jiangxi, Shanxi, Sichuan, the Xinjiang Uygur Autonomous Region, Yunnan, and the Ningxia Hui Autonomous Region participated in the survey. The GP preceptors were recommended by provincial health departments. All questionnaire forms were anonymous. The questionnaire covered the general information, teaching motivations, and training needs of GP preceptors. Requested general information included the GP preceptors' age, gender, years of working experience, degree, professional qualifications, being GPs or not, current need to teach GPs, and units where they worked. The teaching motivation questions included the reasons for being willing or unwilling to be GP preceptors and whether they would or continue to teach GPs. Training needs questions included whether GP preceptors should master, what the shortcoming was, what kind of training method they liked, and how long they should be trained. The reasons for being willing or unwilling to be GP preceptors were scored on a scale of 1–5, with 5 being strongly agree.

Statistical analysis

All statistical analyses were performed using SPSS version 19.0 (SPSS Inc., IL, USA). Continuous variables were expressed as mean \pm standard deviation (SD). Categorical variables were expressed as absolute values and percentages. Differences in continuous variables were tested using the *F*- or *t*-test, and differences in categorical variables were assessed using the Pearson Chi-square test. The minimum statistical significance level for all analyses was $P < 0.05$.

RESULTS

General characteristics of general practitioner preceptors

A total of 344 GP preceptors (91.7% of total) from 11 different provinces of China participated in the survey.

Table 1: General characteristics of GP preceptors

Characteristics	Frequency, <i>n</i> (%)
Gender	
Male	164 (47.7)
Female	180 (52.3)
Age (years)	
<35	81 (23.5)
35–45	183 (53.2)
>45	96 (27.9)
General practitioners	
Yes	62 (18.0)
No	282 (82.0)
Years of working experience	
<11	97 (28.2)
11–20	141 (41.0)
21–30	96 (27.9)
>30	10 (2.9)
Education	
Associate degree	18 (5.2)
Bachelor's degree	204 (59.3)
Master's degree	94 (27.3)
Doctorate	28 (8.1)
Professional qualifications	
Attending	186 (54.1)
Fellow	145 (42.2)
Resident	6 (1.7)
Others	7 (2.0)
Working place	
Community health service center	25 (7.3)
County-level hospital	38 (11.0)
Municipal hospital	174 (50.6)
Provincial hospital	73 (21.2)
Public health bureau	3 (0.9)
Colleges and universities	29 (8.4)
Others	2 (0.6)
Current need to teach GP	304 (88.4)

GP: General practitioner.

The mean age of GP preceptors was 40.2 ± 6.6 years, and 52.3% were women. Among the 344 GP preceptors, 88.4% (304/344) needed to teach GPs in their daily work. Table 1 shows the general characteristics of GP preceptors.

Reasons for the willingness of general practitioner preceptors to teach

The study showed that the percentage of GP preceptors willing to be teachers was about 89.2% (307/344); 6.7% (23/344) did not care and 4.1% (14/344) were reluctant to be GP preceptors. The majority of respondents strongly agreed that their motivation for becoming a GP supervisor was to learn from teaching. Enjoying teaching and the responsibility toward the development of general practice were another two main reasons. A few of GP preceptors were not willing to teach because it might increase the workload [Table 2]. After the training, about 75.0% (258/344) GP preceptors continued teaching, 3.5% (12/344) were not engaged in teaching, and 21.5% (74/344) did not know whether they would teach after the training.

Training needs of general practitioner preceptors

Table 3 depicts the training needs of GP preceptors. The most important capability the GP preceptors should master was clinical teaching (92.2%), followed by a lecture (83.1%) and doctor–patient communication (83.1%). These skills were also what they thought they should strengthen.

The top three preferred methods of training GP preceptors were case discussion (78.8%), workshop (57.6%), and classroom teaching (56.4%). When GP preceptors were asked about the most appropriate training duration, the response varied ranged from 1 week to 3 years.

Diseases were classified according to discipline, including respiratory, cardiology, gastroenterology, pediatrics, obstetrics, gynecology, otolaryngology, ophthalmology, dermatology, mental health, first aid and emergency treatment, surgery, and rehabilitation. The GP preceptors pointed out that the top four important knowledge and basic skills they wanted to learn during training were mental health (59.3%), rehabilitation (47.1%), pediatrics (41.0%), and obstetrics (37.5%).

Comparison between general practitioner preceptors in general practice and other specialties

Based on the specialty, the GP preceptors were separated into two groups: the general practice group and preceptors in other specialties. No significant differences were found in the willingness to teach GPs ($\chi^2 = 3.34$, $P > 0.05$) and whether they would be or continue to be a GP supervisor after the training ($\chi^2 = 1.106$, $P > 0.05$) [Table 4].

DISCUSSION

The study suggested that the titles of GP preceptors were higher than before. It was found that 94.8% GP preceptors had a bachelor's degree or higher, which was better than the survey of GP preceptors who participated in the training of general practice training center of Ministry of Health in 2003: 23.08% had associate degree, 67.3% had a bachelor's degree, and 9.62% had a master's degree or higher.^[6] The present study showed that the percentage of GP preceptors willing to be teachers was about 89.2%. This was far superior to the findings of Hainan province in 2012, in which only 66.4% GP preceptors were willing to teach, 22.7% were unwilling, and 10.9% thought both options were fine.^[12]

This study found that the main reasons for becoming or continuing to remain a preceptor included learning from teaching, enjoyment of teaching, and responsibility to develop the general practice. However, financial incentives were not one of the strong motivators. This outcome was largely consistent with a previous study of 93 rural Australian GP preceptors:^[13] the primary intrinsic motivations for GP preceptors included enjoyment of teaching, variety provided by teaching, and desire to contribute to the profession and ongoing health of preceptors' communities. Some studies in China also achieved similar results.^[14] Kerry Boardman stated that the most common reason for GPs to embrace

Table 2: Reasons for the willingness of GP preceptors to teach, *n* (%)

Reasons	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
Enjoy teaching because					
I enjoy teaching	159 (51.8)	103 (33.6)	44 (14.3)	0	1 (0.3)
Responsibility toward the development of general practice	167 (54.4)	104 (33.9)	36 (11.7)	0	0
Responsibility toward community health	151 (49.2)	110 (35.8)	44 (14.3)	1 (0.3)	1 (0.3)
Teaching payment	65 (21.2)	81 (26.4)	142 (46.3)	10 (3.3)	9 (2.9)
Learning from teaching	192 (62.5)	82 (26.7)	30 (9.8)	2 (0.7)	1 (0.3)
Chance of promotion	56 (18.2)	78 (25.4)	139 (45.3)	19 (6.2)	15 (4.9)
Request of the leader	101 (32.9)	102 (33.2)	90 (29.3)	7 (2.3)	7 (2.3)
Unwilling to teach because					
Increase workload	5 (35.7)	7 (50.0)	2 (14.2)	0	0
Do not have enough time	3 (21.4)	8 (57.1)	2 (14.3)	1 (7.1)	0
Lack of teaching experience	2 (14.3)	7 (50.0)	4 (28.6)	1 (7.1)	0
No teaching payment	2 (14.3)	6 (42.9)	6 (42.9)	0	0

GP: General practitioner.

Table 3: Training needs of GP preceptors

Needs	Training program, <i>n</i> (%)	Training needs, <i>n</i> (%)
Clinical medicine basic knowledge	250 (72.7)	138 (40.1)
Basic clinical skills	261 (75.9)	154 (44.8)
Clinical teaching capability	317 (92.2)	273 (79.4)
Lecture ability	286 (83.1)	229 (66.6)
Trainees management	189 (54.9)	154 (44.8)
Conflict management	131 (38.1)	97 (28.2)
Doctor-patient communication ability	283 (82.3)	208 (60.5)
Reaction capability	181 (52.6)	126 (36.6)
Trainee assessment	169 (49.1)	160 (46.5)
Written articles	152 (44.2)	141 (41.0)
Balance work and time management	141 (41.0)	105 (30.5)

GP: General practitioner.

teaching was the opportunity to reflect on practice and refresh their skills and knowledge in London.^[15] UK-based GP preceptors considered time pressures, workload pressures, insufficient remuneration to provide cover for lost service provision, and lack of teaching space to be the greatest challenges to teaching in practice. However, another study in Hainan province in China showed that the main reason for the unwillingness of GP preceptors to teach was that they did not have a systematic knowledge of general practice; the workload and financial incentives were in the minority.^[12]

After the training, about 75.0% of GP preceptors continued teaching. This was much higher than 41.7% of preceptors who would be in the teaching and training of general medicine.^[6] Most of the GPs were recommended by relevant governmental departments, hospitals, or community health centers in the last few years for rapid training. Furthermore, most of the GP preceptors were not engaged in general practice. This led to the low intention to continue teaching

after the training. However, the government has realized the disadvantages and has been paying more attention to the development of general practice. It has been put forward in the national health meeting to accelerate the development of general practice. More physicians want to be GP preceptors because citizens know more about general practice.

GP preceptors thought that clinical teaching capability, lecture ability, and doctor-patient communication ability were the most important abilities to master and strengthen. The result of this study was similar to the findings of Baker,^[16] whose survey indicated both a need and a desire for educational skills development among rural GP preceptors. According to the survey of GP preceptors in Shanghai, knowledge on clinical skills (72.2%) and thinking (70.2%) during the general practice was the most required.^[17] The present results were different probably due to the higher proportion (67.5%) of the GP preceptors from community health service centers in the Shanghai survey. However, most preceptors in the present study were from hospitals and they had enough practical experience without abundant teaching experience.

Although most GP preceptors were specialists, the willingness to teach was stronger than expected. Compared with foreign general medical education system,^[18] the training and assessment of GPs in China are quite difficult. In the UK, the GPs can apply for doctor's position after 5-year medical studies and 2-year foundation training, followed by more than 5 years' specialist training that makes them eligible for consultant jobs. When they become GP preceptors, they have the organization ability, teaching ability, comprehensive development ability, and the ability to evaluate teaching and provide feedback.^[19] However, as most GP preceptors are specialists in China, they have little knowledge of mental health, rehabilitation, pediatrics, and obstetrics, which should be included in the future training programs.

This study demonstrated that the educational intervention of the Ministry of Health was successful. Although most

Table 4: Comparison of willingness between GP and other specialties, n

Group	Willing to teach or not			Continue teaching after training		
	Willing	Unwilling	Not care	Willing	Unwilling	Not care
General practice	59	2	1	48	3	11
Other specialties	248	12	22	210	9	63
χ^2		3.340			1.106	
<i>P</i>		0.188			0.776	

GP: General practitioner.

preceptors were under on-the-job training, they were glad to teach GPs. The training contents should be determined according to the actual needs of GP preceptors for improvement in training.^[20] To be qualified, preceptors need to have professional knowledge of mental health, rehabilitation, pediatrics, and obstetrics. Clinical teaching capability, lecture ability, and doctor–patient communication ability need be strengthened.

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Conflicts of interest

There are no conflicts of interest.

REFERENCES

- Chen TH, Du Y, Sohal A, Underwood M. Essay – Family medicine education and training in China: Past, present and future. *Br J Gen Pract* 2007;57:674-6.
- Yang J, Guo A, Wang Y, Zhao Y, Yang X, Li H, *et al.* Human resource staffing and service functions of community health services organizations in China. *Ann Fam Med* 2008;6:421-7. doi: 10.1370/afm.888.
- Rao X, Wan XH, Jing XJ, Zhao Q, Li L. Investigation on the training of clinical teachers of general medicine in West China hospital of Sichuan University (in Chinese). *West China Med J* 2015;1:156-8. doi: 10.7507/1002-0179.20150049.
- Ren W, Liu Y, Qiu Y, Ren J. Development of general practice education and training in China. *Chin Med J* 2014;127:3181-4. doi: 10.3760/cma.j.issn.0366-6999.20140503.
- Chen DB, Liu JY. Counter measure and status quo of the training of general practice teachers in the mainland of China (in Chinese). *Chin J Med Educ Res* 2015;3:252-5. doi: 10.3760/cma.j.issn.2095-1485.2015.03.010.
- Men HJ, Han JJ. The question and counter measure on teachers team of general practitioner building in our country (in Chinese). *Chin Gen Pract* 2006;3:185-7.
- Dybowski C, Harendza S. Validation of the physician teaching motivation questionnaire (PTMQ). *BMC Med Educ* 2015;15:166. doi: 10.1186/s12909-015-0448-5.
- Lester HE, Carter YH, Dassu D, Hobbs FD. Survey of research activity, training needs, departmental support, and career intentions of junior academic general practitioners. *Br J Gen Pract* 1998;48:1322-6.
- Tolhurst H, McMillan J, McInerney P, Bernasconi J. The emergency medicine training needs of rural general practitioners. *Aust J Rural Health* 1999;7:90-6. doi: 10.1046/j.1440-1584.1999.00234.x.
- Iavicoli S, Della Porta G, Natali E, Persechino B, Petyx M, Rondinone B, *et al.* Training needs and role of general practitioners for preventing measures and medical surveillance of ex-exposed to occupational carcinogens. *G Ital Med Lav Ergon* 2005;27:293-6.
- Taylor C, Turnbull C, Sparrow N. Establishing the continuing professional development needs of general practitioners in their first five years after training. *Educ Prim Care* 2010;21:316-9. doi: 10.1080/14739879.2007.11493572.
- Huang HR, Chen L, Chen XF, Sun ZX. The basic condition of general medical teachers in Hainan province (in Chinese). *Chin Gen Pract* 2013;31:2985-7. doi: 10.3969/j.issn.1007-9572.2013.09.022.
- Ingham G, O'Meara P, Fry J, Crothers N. GP supervisors – An investigation into their motivations and teaching activities. *Aust Fam Physician* 2014;43:808-12.
- Xia HL, Jiang SF, Shou J, Zhu SZ, Liu Y. Survey on teaching status of general practitioners in community health centers of Shanghai (in Chinese). *Chin J Gen Pract* 2015;14:437-41. doi: 10.3760/cma.j.issn.1671-7368.2015.06.012.
- Boardman K, Patel D, Stephenson A. What motivates general practitioners to teach? *Clin Teach* 2014;11:573. doi: 10.1111/tct.12283.
- Baker PG, Dalton L, Walker J. Rural general practitioner preceptors – How can effective undergraduate teaching be supported or improved? *Rural Remote Health* 2003;3:107.
- Peng MH, Zhu SZ, Jiang SF. Survey on training needs for key general practice trainers in Shanghai (in Chinese). *Chin J Gen Pract* 2016;15:258-63. doi: 10.3760/cma.j.issn.1671-7368.2016.04.006.
- Cai Y, Sun QL, Yao WF. Comparison between China and foreign countries: Reflections on Chinese general practitioner training mechanism (in Chinese). *Med Philos* 2015;36:68-70.
- Lu Y, Yu DH, Pan Y, Zhang B, Zhang HZ, Zhu MJ. Status of general practice faculty standard home and abroad and suggestions for faculty development (in Chinese). *Chin Gen Pract* 2015;21:2493-7. doi: 10.3969/j.issn.1007-9572.2015.21.001.
- Xie QW, Zhu JF, Yuan TT, Feng Y, Duan HJ, Shi R. Intention survey on the standardized training for residency of general practitioners in Shanghai (in Chinese). *Chin Gen Pract* 2015;34:4233-5. doi: 10.3969/j.issn.1007-9572.2015.34.020.